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IS : 6644 - 1986

Indian Standard
SPECIFICATION FOR
TINMAN'S MALLET
(*First Revision*)

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR TINMAN'S MALLET

(First Revision)

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Indian Standard

SPECIFICATION FOR TINMAN'S MALLETS

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 27 January 1986, after the draft finalized by the Timber Stores Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 A series of Indian Standards are being formulated to cover various wooden mallets, largely used by Defence, Railways and other agencies. This standard is intended to cover the requirements of tinman's mallets.

0.2.1 This standard was first published in 1972. The present revision of this standard is based on the experience gained over the years. Based on the research and development more species of timber have been added. Additional species for block for testing of mallets have been included.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements for tinman's mallets.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 707-1968† shall apply.

*Rules for rounding off numerical values (*revised*).

†Glossary of terms applicable to timber and timber products (*first revision*).

3. MATERIALS

3.1 Head

- a) The mallet head shall be manufactured from any of the timbers given in Appendix A.
- b) Timber shall be well seasoned to a moisture content not exceeding 15 percent and the inclination of the grain shall not exceed 1 in 20. Timber shall be free from sapwood, centre-heart (pith), any kind of decay (rot), insect attack, knots, cracks, splits, shakes and any other defect which is likely to reduce the life of the fabricated heads.

3.2 Handle — The mallet handle shall be manufactured from any of the timber specified for Class IV handles in IS : 620-1985*. The requirements for the manufactured handles shall be as given in IS : 620-1985*.

3.3 Wedge — The wedge shall be manufactured from any of the timbers given in Appendix A.

4. MANUFACTURE

4.1 The mallet head and handle shall be manufactured to the shape and design as shown in Fig. 1.

4.2 The eye in the head shall be central, accurate, smooth and of uniform taper. The hole shall be bored across the grain.

4.3 The end of the head shall be flat with the edges slightly chamfered.

4.4 The handle shall be properly fixed to the head and securely wedged (see Fig. 1).

4.5 It is recommended that immediately after manufacture, the handle and the head be dipped in raw linseed oil at room temperature, as this treatment retards changes in moisture content and subsequent development of surface cracks.

5. DIMENSIONS AND TOLERANCES

5.1 Dimensions — The mallet shall conform to the dimensions as given in Fig. 1.

5.2 Tolerances — The tolerances shall be as given below:

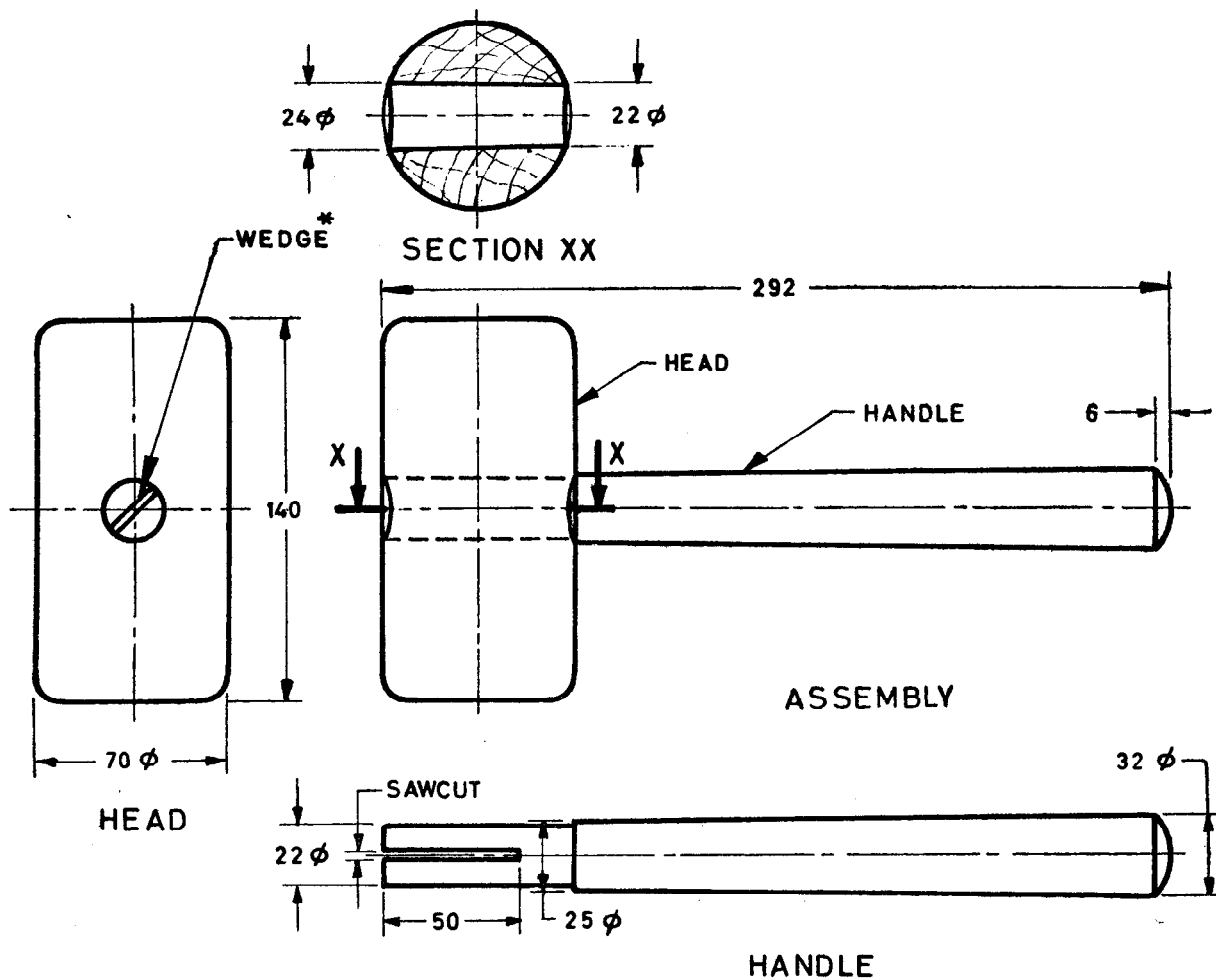
a) *Handle*

- 1) Where the head fits + 3 mm
 — 0 mm
- 2) At other places ± 2 mm

b) *Head*

Normal manufacturing tolerances

*General requirements for wooden tool handles (*third revision*).



*Length of wedge 32 mm. Wedge not to be glued.

All dimensions in millimetres.

FIG. 1 TINMAN'S MALLETS

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6. WORKMANSHIP AND FINISH

6.1 The mallet shall be properly shaped and finished smooth all over. The brazing or welding of the joints of the bands shall be clean and sound.

7. TEST

7.1 Each mallet shall be struck twelve times, as in normal use, against a block of salwood or axlewood or babul or anjan. At the end of this test, neither the head nor the handle shall show any sign of failure.

8. TREATMENT

8.1 Unless otherwise specified by the purchaser, the mallets shall be thoroughly soaked in hot (about 90°C) raw linseed oil for one hour and allowed to drain. They shall then be wiped clean with a dry piece of cloth.

9. PACKING

9.1 Unless otherwise specified, the mallet shall be securely tied and packed in gunny cloth, in convenient lots for easy handling in transit.

10. SAMPLING

10.1 The method of drawing representative samples of tinman's mallets and the criteria for conformity shall be as prescribed in Appendix G of IS : 620-1985*.

11. MARKING

11.1 Each mallet shall be legibly and indelibly marked with the following:

- a) Manufacturer's name or initials or recognized trade-mark, and
- b) Year of manufacture.

11.1.1 The mallet may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

*General requirements for wooden tool handles (*third revision*).

APPENDIX A

[Clauses 3.1 (a) and 3.3]

TIMBER SPECIES FOR MALLET HEAD

Sl No.	Botanical and trade name
1.	<i>Acacia arabica</i> (babul)
2.	<i>Albizia lebbek</i> (kokko)
3.	<i>Albizia odoratissima</i> (kala siris)
4.	<i>Albizia procera</i> (safed siris)
5.	<i>Amoora</i> spp. (amari)
6.	<i>Anogeissus latifolia</i> (axlewood)
7.	<i>Anogeissus pendula</i> (kardahi)
8.	<i>Artocarpus hirsutus</i> (aini)
9.	<i>Chloroxylon sivieta</i> (satinwood)
10.	<i>Dalbergia sissoo</i> (sissoo)
11.	<i>Diospyros</i> spp. (ebony)
12.	<i>Dysoxylum malabaricum</i> (white cedar)
13.	<i>Grewia</i> spp. (dhaman)
14.	<i>Hardwickia binata</i> (anjan)
15.	<i>Lagerstroemia lanceolata</i> (benteak)
16.	<i>Mitragyna parvifolia</i> (kaim)
17.	<i>Morus laevigata</i> (bola)
18.	<i>Morus</i> spp. (mulberry)
19.	<i>Ougenia oojenensis</i> (sandan)
20.	<i>Pterocarpus marsupium</i> (bijasal)
21.	<i>Shorea robusta</i> (sal)
22.	<i>Tectona grandis</i> (teak)
23.	<i>Terminalia alata</i> (laurel)
24.	<i>Terminalia chebula</i> (mejrobalan)
25.	<i>Terminalia manii</i> (black chuglam)
26.	<i>Terminalia paniculata</i> (kindal)
27.	<i>Xylia xylocarpa</i> (irul)
28.	<i>Zanthoxylum rhetsa</i> (mullilam)



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